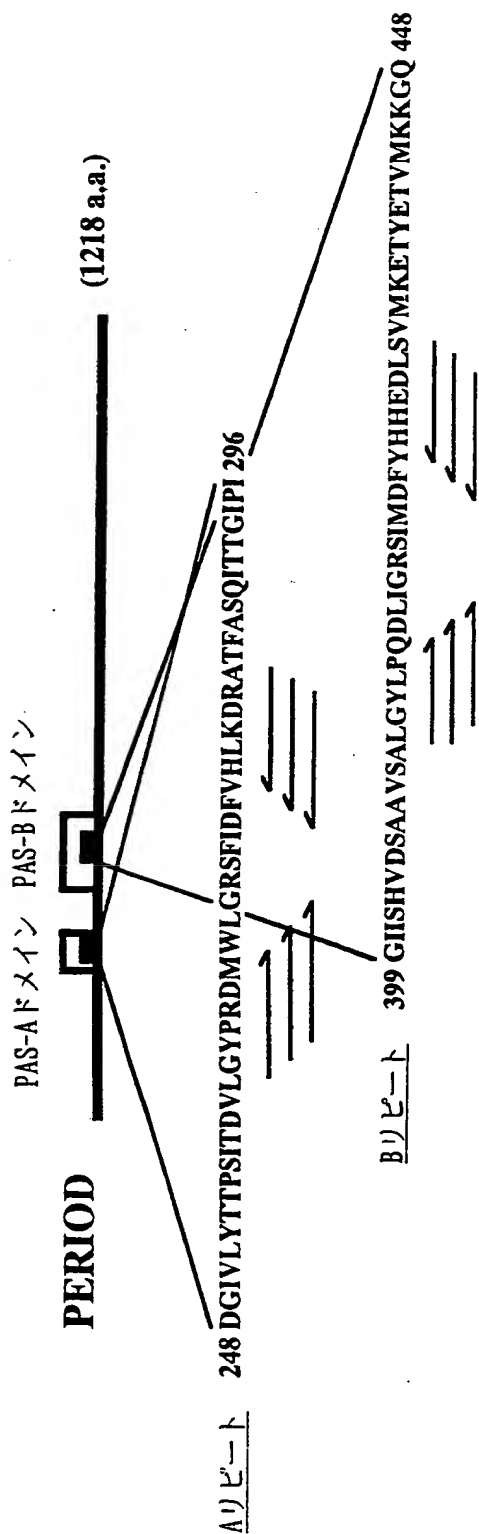


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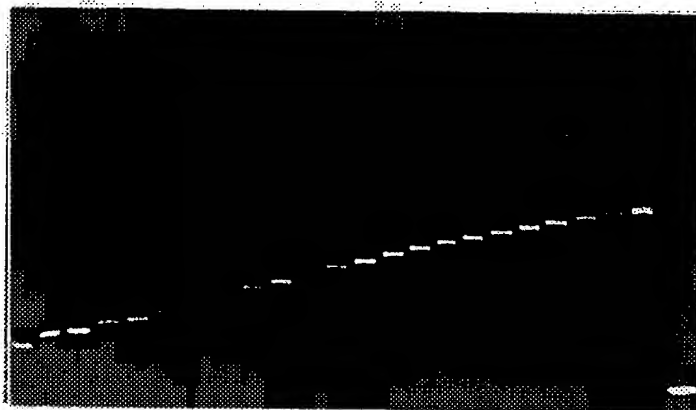
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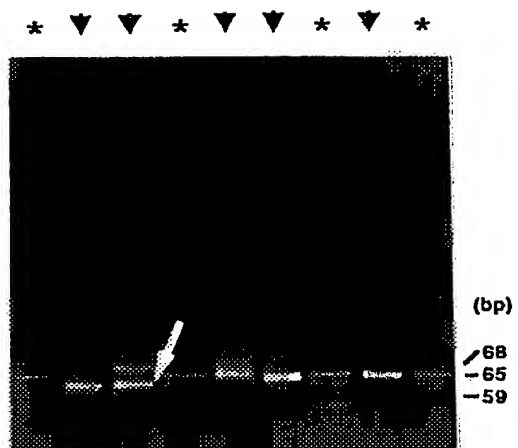
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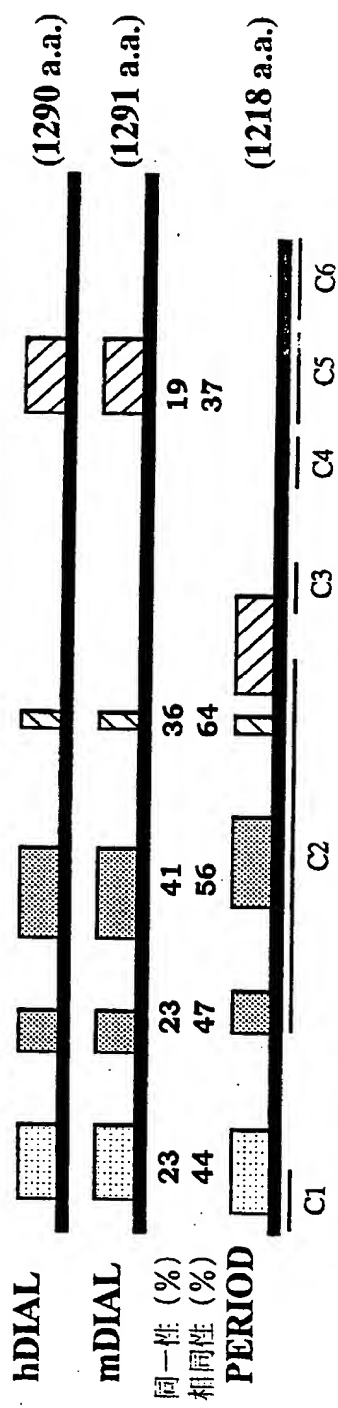
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☒ 3



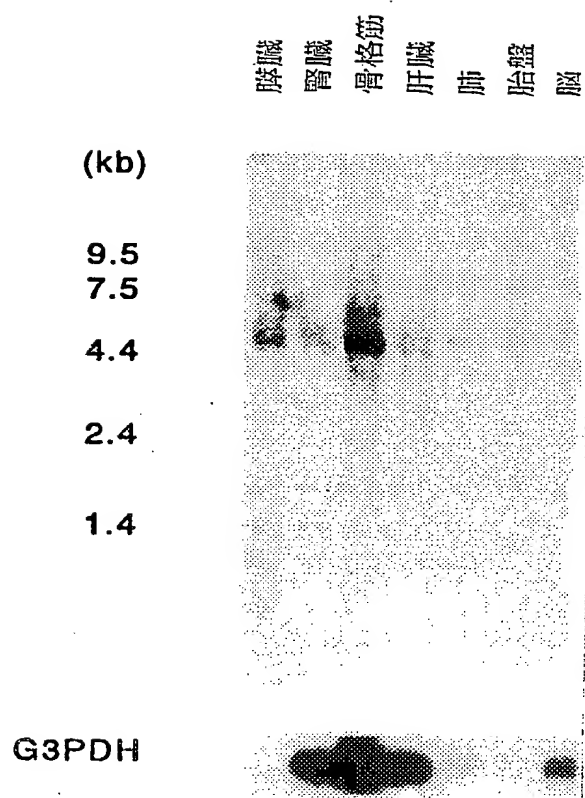
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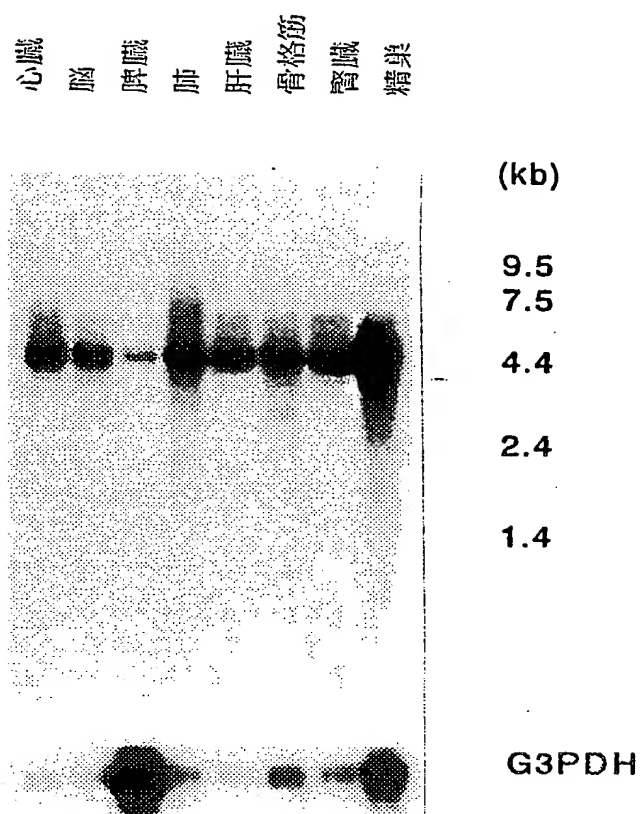
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図 6



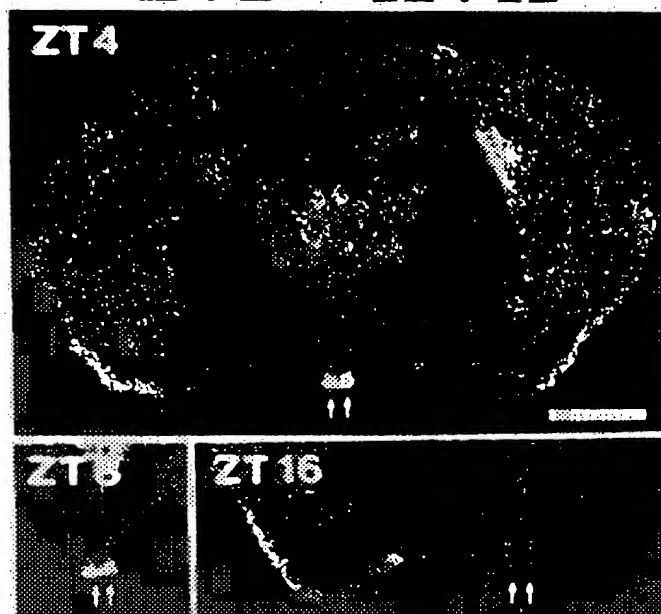
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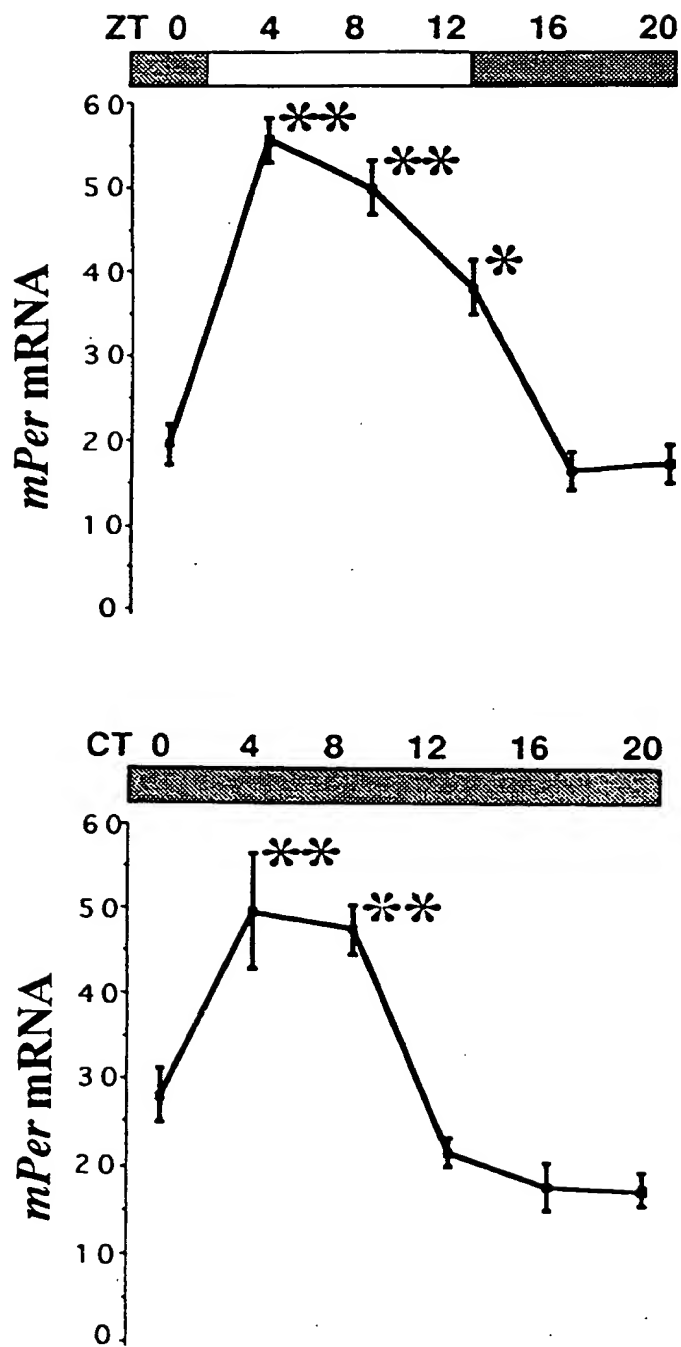
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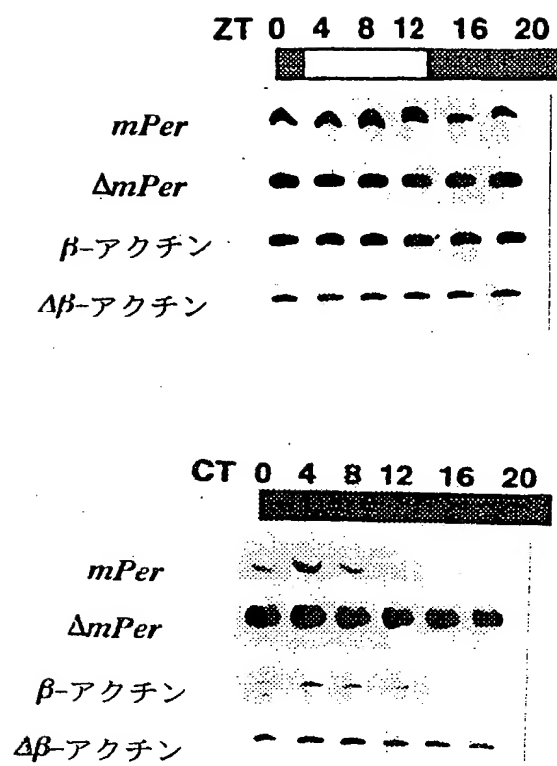
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図 9



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図 10



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榊 佳之

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2 /46

Gly Glu Ser Phe Cys Pro Gly Gly Val Pro Ser Pro Gly Pro Pro Gln

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His Arg Pro Cys Pro Gly Pro Ser Leu Ala Asp Asp Thr Asp Ala Asn

35

40

45

Ser Asn Gly Ser Ser Gly Asn Glu Ser Asn Gly His Glu Ser Arg Gly

50

55

60

Ala Ser Gln Arg Ser Ser His Ser Ser Ser Ser Gly Asn Gly Lys Asp

65

70

75

80

Ser Ala Leu Leu Glu Thr Thr Glu Ser Ser Lys Ser Thr Asn Ser Gln

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90

95

Ser Pro Ser Pro Pro Ser Ser Ser Ile Ala Tyr Ser Leu Leu Ser Ala

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105

110

Ser Ser Glu Gln Asp Asn Pro Ser Thr Ser Gly Cys Ser Ser Glu Gln

115

120

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Ser Ala Arg Ala Arg Thr Gln Lys Glu Leu Met Thr Ala Leu Arg Glu

130

135

140

Leu Lys Leu Arg Leu Pro Pro Glu Arg Arg Gly Lys Gly Arg Ser Gly

145

150

155

160

Thr Leu Ala Thr Leu Gln Tyr Ala Leu Ala Cys Val Lys Gln Val Gln

165

170

175

Ala Asn Gln Glu Tyr Tyr Gln Gln Trp Ser Leu Glu Glu Gly Glu Pro

180

185

190

Cys Ser Met Asp Met Ser Thr Tyr Thr Leu Glu Glu Leu Glu His Ile

195

200

205

Thr Ser Glu Tyr Thr Leu Gln Asn Gln Asp Thr Phe Ser Val Ala Val

210

215

220

Ser Phe Leu Thr Gly Arg Ile Val Tyr Ile Ser Glu Gln Ala Ala Val

225

230

235

240

Leu Leu Arg Cys Lys Arg Asp Val Phe Arg Gly Thr Arg Phe Ser Glu

245

250

255

Leu Leu Ala Pro Gln Asp Val Gly Val Phe Tyr Gly Ser Thr Ala Pro

260

265

270

Ser Arg Leu Pro Thr Trp Gly Thr Gly Ala Ser Ala Gly Ser Gly Leu

275

280

285

Arg Asp Phe Thr Gln Glu Lys Ser Val Phe Cys Arg Ile Arg Gly Gly

290 295 300

Pro Asp Arg Asp Pro Gly Pro Arg Tyr Gln Pro Phe Arg Leu Thr Pro
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Tyr Val Thr Lys Ile Arg Val Ser Asp Gly Ala Pro Ala Gln Pro Cys
325 330 335

Cys Leu Leu Ile Ala Glu Arg Ile His Ser Gly Tyr Glu Ala Pro Arg
340 345 350

Ile Pro Pro Asp Lys Arg Ile Phe Thr Thr Arg His Thr Pro Ser Cys
355 360 365

Leu Phe Gln Asp Val Asp Glu Arg Ala Ala Pro Leu Leu Gly Tyr Leu
370 375 380

Pro Gln Asp Leu Leu Gly Ala Pro Val Leu Leu Phe Leu His Pro Glu
385 390 395 400

Asp Arg Pro Leu Met Leu Ala Ile His Lys Lys Ile Leu Gln Leu Ala
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Gly Gln Pro Phe Asp His Ser Pro Ile Arg Phe Cys Ala Arg Asn Gly
420 425 430

Glu Tyr Val Thr Met Asp Thr Ser Trp Ala Gly Phe Val His Pro Trp

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Ser Arg Lys Val Ala Phe Val Leu Gly Arg His Lys Val Arg Thr Ala

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455

460

Pro Leu Asn Glu Asp Val Phe Thr Pro Pro Ala Pro Ser Pro Ala Pro

465

470

475

480

Ser Leu Asp Thr Asp Ile Gln Glu Leu Ser Glu Gln Ile His Arg Leu

485

490

495

Leu Leu Gln Pro Val His Ser Pro Ser Pro Thr Gly Leu Cys Gly Val

500

505

510

Gly Ala Val Thr Ser Pro Gly Pro Leu His Ser Pro Gly Ser Ser Ser

515

520

525

Asp Ser Asn Gly Gly Asp Ala Glu Gly Pro Gly Pro Pro Ala Pro Val

530

535

540

Thr Phe Gln Gln Ile Cys Lys Asp Val His Leu Val Lys His Gln Gly

545

550

555

560

Gln Gln Leu Phe Ile Glu Ser Arg Ala Arg Pro Gln Ser Arg Pro Arg

565

570

575

Leu Pro Ala Thr Gly Thr Phe Lys Ala Lys Ala Leu Pro Cys Gln Ser

580

585

590

Pro Asp Pro Glu Leu Glu Ala Gly Ser Ala Pro Val Gln Ala Pro Leu

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600

605

Ala Leu Val Pro Glu Glu Ala Glu Arg Lys Glu Ala Ser Ser Cys Ser

610

615

620

Tyr Gln Gln Ile Asn Cys Leu Asp Ser Ile Leu Arg Tyr Leu Glu Ser

625

630

635

640

Cys Asn Leu Pro Ser Thr Thr Lys Arg Lys Cys Ala Ser Ser Ser Ser

645

650

655

Tyr Thr Thr Ser Ser Ala Ser Asp Asp Asp Arg Gln Arg Thr Gly Pro

660

665

670

Val Ser Val Gly Thr Lys Lys Asp Pro Pro Ser Ala Ala Leu Ser Gly

675

680

685

Glu Gly Ala Thr Pro Arg Lys Glu Pro Val Val Gly Gly Thr Leu Ser

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695

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Pro Leu Ala Leu Ala Asn Lys Ala Glu Ser Val Val Ser Val Thr Ser

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Pro Glu Ser Asp Ile Ile Met Met Glu Asp Leu Pro Gly Leu Ala Pro			
	740	745	750
Gly Pro Ala Pro Ser Pro Ala Pro Ser Pro Thr Val Ala Pro Asp Pro			
	755	760	765
Ala Pro Asp Ala Tyr Arg Pro Val Gly Leu Thr Lys Ala Val Leu Ser			
	770	775	780
Leu His Thr Gln Lys Glu Glu Gln Ala Phe Leu Ser Arg Phe Arg Asp			
785	790	795	800
Leu Gly Arg Leu Arg Gly Leu Asp Ser Ser Ser Thr Ala Pro Ser Ala			
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Leu Gly Glu Arg Gly Cys His His Gly Pro Ala Pro Pro Ser Arg Arg			
	820	825	830
His His Cys Arg Ser Lys Ala Lys Arg Ser Arg His His Gln Asn Pro			
	835	840	845

Arg Ala Glu Ala Pro Cys Tyr Val Ser His Pro Ser Pro Val Pro Pro

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855

860

Ser Thr Pro Trp Pro Thr Pro Pro Ala Thr Thr Pro Phe Pro Ala Val

865

870

875

880

Val Gln Pro Tyr Pro Leu Pro Val Phe Ser Pro Arg Gly Gly Pro Gln

885

890

895

Pro Leu Pro Pro Ala Pro Thr Ser Val Pro Pro Ala Ala Phe Pro Ala

900

905

910

Pro Leu Val Thr Pro Met Val Ala Leu Val Leu Pro Asn Tyr Leu Phe

915

920

925

Pro Thr Pro Ser Ser Tyr Pro Tyr Gly Ala Leu Gln Thr Pro Ala Glu

930

935

940

Gly Pro Pro Thr Pro Ala Ser His Ser Pro Ser Pro Ser Leu Pro Ala

945

950

955

960

Leu Pro Pro Ser Pro Pro His Arg Pro Asp Ser Pro Leu Phe Asn Ser

965

970

975

Arg Cys Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Leu Glu Glu Leu

980

985

990

Pro Arg Ala Glu Gly Ala Ala Val Ala Gly Gly Pro Gly Ser Ser Ala

995

1000

1005

Gly Pro Pro Pro Pro Ser Ala Glu Ala Ala Glu Pro Glu Ala Arg Leu

1010

1015

1020

Ala Glu Val Thr Glu Ser Ser Asn Gln Asp Ala Leu Ser Gly Ser Ser

1025

1030

1035

1040

Asp Leu Leu Glu Leu Leu Leu Gln Glu Asp Ser Arg Ser Gly Thr Gly

1045

1050

1055

Ser Ala Ala Ser Gly Ser Leu Gly Ser Gly Leu Gly Ser Gly Ser Gly

1060

1065

1070

Ser Gly Ser His Glu Gly Gly Ser Thr Ser Ala Ser Ile Thr Arg Ser

1075

1080

1085

Ser Gln Ser Ser His Thr Ser Lys Tyr Phe Gly Ser Ile Asp Ser Ser

1090

1095

1100

Glu Ala Glu Ala Gly Ala Ala Arg Gly Gly Ala Glu Pro Gly Asp Gln

1105

1110

1115

1120

Val Ile Lys Tyr Val Leu Gln Asp Pro Ile Trp Leu Leu Met Ala Asn

10 /46

1125

1130

1135

Ala Asp Gln Arg Val Met Met Thr Tyr Gln Val Pro Ser Arg Asp Met

1140

1145

1150

Thr Ser Val Leu Lys Gln Asp Arg Glu Arg Leu Arg Ala Met Gln Lys

1155

1160

1165

Gln Gln Pro Arg Phe Ser Glu Asp Gln Arg Arg Glu Leu Gly Ala Val

1170

1175

1180

His Ser Trp Val Arg Lys Gly Gln Leu Pro Arg Ala Leu Asp Val Met

1185

1190

1195

1200

Ala Cys Val Asp Cys Gly Ser Ser Thr Gln Asp Pro Gly His Pro Asp

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1210

1215

Asp Pro Leu Phe Ser Glu Leu Asp Gly Leu Gly Leu Glu Pro Met Glu

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1225

1230

Glu Gly Gly Gly Glu Gln Gly Ser Ser Gly Gly Gly Ser Gly Glu Gly

1235

1240

1245

Glu Gly Cys Glu Glu Ala Gln Gly Gly Ala Lys Ala Ser Ser Ser Gln

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Ala Leu Pro Thr Ala Gly Asn Cys Thr Ser
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<213> Mus musculus

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His Arg Pro Cys Pro Gly Pro Ser Leu Ala Asp Asp Thr Asp Ala Asn
35 40 45

Ser Asn Gly Ser Ser Gly Asn Glu Ser Asn Gly Pro Glu Ser Arg Gly
50 55 60

Ala Ser Gln Arg Ser Ser His Ser Ser Ser Ser Gly Asn Gly Lys Asp
65 70 75 80

Ser Ala Leu Leu Glu Thr Thr Glu Ser Ser Lys Ser Thr Asn Ser Gln

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90

95

Ser Pro Ser Pro Pro Ser Ser Ser Ile Ala Tyr Ser Leu Leu Ser Ala

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105

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Ser Ser Glu Gln Asp Asn Pro Ser Thr Ser Gly Cys Ser Ser Glu Gln

115

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125

Ser Ala Arg Ala Arg Thr Gln Lys Glu Leu Met Thr Ala Leu Arg Glu

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Leu Lys Leu Arg Leu Pro Pro Glu Arg Arg Gly Lys Gly Arg Ser Gly

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Thr Leu Ala Thr Leu Gln Tyr Ala Leu Ala Cys Val Lys Gln Val Gln

165

170

175

Ala Asn Gln Glu Tyr Tyr Gln Gln Trp Ser Leu Glu Glu Gly Glu Pro

180

185

190

Cys Ala Met Asp Met Ser Thr Tyr Thr Leu Glu Glu Leu Glu His Ile

195

200

205

Thr Ser Glu Tyr Thr Leu Arg Asn Gln Asp Thr Phe Ser Val Ala Val

210

215

220

Ser Phe Leu Thr Gly Arg Ile Val Tyr Ile Ser Glu Gln Ala Gly Val

225

230

235

240

Leu Leu Arg Cys Lys Arg Asp Val Phe Arg Gly Ala Arg Phe Ser Glu

245

250

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Leu Leu Ala Pro Gln Asp Val Gly Val Phe Tyr Gly Ser Thr Thr Pro

260

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Ser Arg Leu Pro Thr Trp Gly Thr Gly Thr Ser Ala Gly Ser Gly Leu

275

280

285

Lys Asp Phe Thr Gln Glu Lys Ser Val Phe Cys Arg Ile Arg Gly Gly

290

295

300

Pro Asp Arg Asp Pro Gly Pro Arg Tyr Gln Pro Phe Arg Leu Thr Pro

305

310

315

320

Tyr Val Thr Lys Ile Arg Val Ser Asp Gly Ala Pro Ala Gln Pro Cys

325

330

335

Cys Leu Leu Ile Ala Glu Arg Ile His Ser Gly Tyr Glu Ala Pro Arg

340

345

350

Ile Pro Pro Asp Lys Arg Ile Phe Thr Thr Arg His Thr Pro Ser Cys

355

360

365

Leu Phe Gln Asp Val Asp Glu Arg Ala Ala Pro Leu Leu Gly Tyr Leu

370

375

380

Pro Gln Asp Leu Leu Gly Ala Pro Val Leu Leu Phe Leu His Pro Glu

385

390

395

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Ser Arg Lys Val Ala Phe Val Leu Gly Arg His Lys Val Arg Thr Ala

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Pro Leu Asn Glu Asp Val Phe Thr Pro Pro Ala Pro Ser Pro Ala Pro

465

470

475

480

Ser Leu Asp Ser Asp Ile Gln Glu Leu Ser Glu Gln Ile His Arg Leu

485

490

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Leu Leu Gln Pro Val His Ser Ser Ser Pro Thr Gly Leu Cys Gly Val

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505

510

Gly Pro Leu Met Ser Pro Gly Pro Leu His Ser Pro Gly Ser Ser Ser

515

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525

Asp Ser Asn Gly Gly Asp Ala Glu Gly Pro Gly Pro Pro Ala Pro Val

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535

540

Thr Phe Gln Gln Ile Cys Lys Asp Val His Leu Val Lys His Gln Gly

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555

560

Gln Gln Leu Phe Ile Glu Ser Arg Ala Lys Pro Pro Pro Arg Pro Arg

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570

575

Leu Leu Ala Thr Gly Thr Phe Lys Ala Lys Val Leu Pro Cys Gln Ser

580

585

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Pro Asn Pro Glu Leu Glu Val Ala Pro Val Pro Asp Gln Ala Ser Leu

595

600

605

Ala Leu Ala Pro Glu Glu Pro Glu Arg Lys Glu Thr Ser Gly Cys Ser

610

615

620

Tyr Gln Gln Ile Asn Cys Leu Asp Ser Ile Leu Arg Tyr Leu Glu Ser

625 630 635 640

Cys Asn Ile Pro Ser Thr Thr Lys Arg Lys Cys Ala Ser Ser Ser Ser
645 650 655

Tyr Thr Ala Ser Ser Ala Ser Asp Asp Asp Lys Gln Arg Ala Gly Pro
660 665 670

Val Pro Val Gly Ala Lys Lys Asp Pro Ser Ser Ala Met Leu Ser Gly
675 680 685

Glu Gly Ala Thr Pro Arg Lys Glu Pro Val Val Gly Gly Thr Leu Ser
690 695 700

Pro Leu Ala Leu Ala Asn Lys Ala Glu Ser Val Val Ser Val Thr Ser
705 710 715 720

Gln Cys Ser Phe Ser Ser Thr Ile Val His Val Gly Asp Lys Lys Pro
725 730 735

Pro Glu Ser Asp Ile Ile Met Met Glu Asp Leu Pro Gly Leu Ala Pro
740 745 750

Gly Pro Ala Pro Ser Pro Ala Pro Ser Pro Thr Val Ala Pro Asp Pro
755 760 765

Thr Pro Asp Ala Tyr Arg Pro Val Gly Leu Thr Lys Ala Val Leu Ser
770 775 780

Leu His Thr Gln Lys Glu Glu Gln Ala Phe Leu Asn Arg Phe Arg Asp
785 790 795 800

Leu Gly Arg Leu Arg Gly Leu Asp Thr Ser Ser Val Ala Pro Ser Ala
805 810 815

Pro Gly Cys His His Gly Pro Ile Pro Pro Gly Arg Arg His His Cys
820 825 830

Arg Ser Lys Ala Lys Arg Ser Arg His His His His Gln Thr Pro Arg
835 840 845

Pro Glu Thr Pro Cys Tyr Val Ser His Pro Ser Pro Val Pro Ser Ser
850 855 860

Gly Pro Trp Pro Pro Pro Pro Ala Thr Thr Pro Phe Pro Ala Met Val
865 870 875 880

Gln Pro Tyr Pro Leu Pro Val Phe Ser Pro Arg Gly Gly Pro Gln Pro
885 890 895

Leu Pro Pro Ala Pro Thr Ser Val Ser Pro Ala Thr Phe Pro Ser Pro
900 905 910

Leu Val Thr Pro Met Val Ala Leu Val Leu Pro Asn Tyr Leu Phe Pro

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920

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Thr Pro Pro Ser Tyr Pro Tyr Gly Val Ser Gln Ala Pro Val Glu Gly

930

935

940

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Pro Leu Ser Pro Pro His Arg Pro Asp Ser Pro Leu Phe Asn Ser Arg

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Cys Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Leu Glu Glu Ser Pro

980

985

990

Arg Thr Glu Gly Gly Ala Ala Ala Gly Gly Pro Gly Ser Ser Ala Gly

995

1000

1005

Pro Leu Pro Pro Ser Glu Glu Thr Ala Glu Pro Glu Ala Arg Leu Val

1010

1015

1020

Glu Val Thr Glu Ser Ser Asn Gln Asp Ala Leu Ser Gly Ser Ser Asp

1025

1030

1035

1040

Leu Leu Glu Leu Leu Leu Gln Glu Asp Ser Arg Ser Gly Thr Gly Ser

19 /46

1045

1050

1055

Ala Ala Ser Gly Ser Leu Gly Ser Gly Leu Gly Ser Gly Ser Gly Ser

1060

1065

1070

Gly Ser His Glu Gly Gly Ser Thr Ser Ala Ser Ile Thr Arg Ser Ser

1075

1080

1085

Gln Ser Ser His Thr Ser Lys Tyr Phe Gly Ser Ile Asp Ser Ser Glu

1090

1095

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Ala Glu Ala Gly Ala Ala Arg Ala Arg Thr Glu Pro Gly Asp Gln Val

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1125

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Asp Gln Arg Val Met Met Thr Tyr Gln Val Pro Ser Arg Asp Ala Ala

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1145

1150

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1165

Gln Pro Arg Phe Ser Glu Asp Gln Arg Arg Glu Leu Gly Ala Val His

1170

1175

1180

20 /46

Ser Trp Val Arg Lys Gly Gln Leu Pro Arg Ala Leu Asp Val Met Ala
1185 1190 1195 1200

Cys Val Asp Cys Gly Ser Ser Val Gln Asp Pro Gly His Ser Asp Asp
1205 1210 1215

Pro Leu Phe Ser Glu Leu Asp Gly Leu Gly Leu Glu Pro Met Glu Glu
1220 1225 1230

Gly Gly Gly Glu Gly Gly Gly Cys Gly Val Gly Gly Gly Gly Asp
1235 1240 1245

Gly Gly Glu Glu Ala Gln Thr Gln Ile Gly Ala Lys Gly Ser Ser Ser
1250 1255 1260

Gln Asp Ser Ala Met Glu Glu Glu Glu Gln Gly Gly Gly Ser Ser Ser
1265 1270 1275 1280

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Gly Glu Ser Phe Cys Pro Gly Gly Val Pro Ser Pro Gly Pro Pro Gln
20 25 30

cac cgg cct tgc cca ggc ccc agc ctg gcc gat gac acc gat gcc aac 144
His Arg Pro Cys Pro Gly Pro Ser Leu Ala Asp Asp Thr Asp Ala Asn
35 40 45

agc aat ggt tca agt ggc aat gag tcc aac ggg cat gag tct aga ggc 192
Ser Asn Gly Ser Ser Gly Asn Glu Ser Asn Gly His Glu Ser Arg Gly
50 55 60

gca tct cag cgg agc tca cac agc tcc tcc tca ggc aac ggc aag gac 240
Ala Ser Gln Arg Ser Ser His Ser Ser Ser Ser Gly Asn Gly Lys Asp
65 70 75 80

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22 /46

Ser Ala Leu Leu Glu Thr Thr Glu Ser Ser Lys Ser Thr Asn Ser Gln
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Ser Pro Ser Pro Pro Ser Ser Ser Ile Ala Tyr Ser Leu Leu Ser Ala
100 105 110

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Ser Ser Glu Gln Asp Asn Pro Ser Thr Ser Gly Cys Ser Ser Glu Gln
115 120 125

tca gcc cgg gca agg act cag aag gaa ctc atg aca gca ctt cga gag 432
Ser Ala Arg Ala Arg Thr Gln Lys Glu Leu Met Thr Ala Leu Arg Glu
130 135 140

ctc aag ctt cga ctg ccg cca gag cgc cgg ggc aag ggc cgc tct ggg 480
Leu Lys Leu Arg Leu Pro Pro Glu Arg Arg Gly Lys Gly Arg Ser Gly
145 150 155 160

acc ctg gcc acg ctg cag tac gca ctg gcc tgt gtc aag cag gtg cag 528
Thr Leu Ala Thr Leu Gln Tyr Ala Leu Ala Cys Val Lys Gln Val Gln
165 170 175

gcc aac cag gaa tac tac cag cag tgg agc ctg gag gag ggc gag cct 576
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180 185 190

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Cys Ser Met Asp Met Ser Thr Tyr Thr Leu Glu Glu Leu Glu His Ile
195 200 205

acg tct gag tac aca ctt cag aac cag gat acc ttc tca gtg gct gtc 672
Thr Ser Glu Tyr Thr Leu Gln Asn Gln Asp Thr Phe Ser Val Ala Val
210 215 220

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225 230 235 240

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245 250 255

ctc ctg gct ccc cag gat gtg gga gtc ttc tat ggt tcc act gct cca 816
Leu Leu Ala Pro Gln Asp Val Gly Val Phe Tyr Gly Ser Thr Ala Pro
260 265 270

tct cgc ctg ccc acc tgg ggc aca ggg gcc tca gca ggt tca ggc ctc 864
Ser Arg Leu Pro Thr Trp Gly Thr Gly Ala Ser Ala Gly Ser Gly Leu
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24 /46

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290

295

300

cct gac cgg gat cca ggg cct cgg tac cag cca ttc cgc cta acc ccg 960

Pro Asp Arg Asp Pro Gly Pro Arg Tyr Gln Pro Phe Arg Leu Thr Pro

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Tyr Val Thr Lys Ile Arg Val Ser Asp Gly Ala Pro Ala Gln Pro Cys

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Cys Leu Leu Ile Ala Glu Arg Ile His Ser Gly Tyr Glu Ala Pro Arg

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Ile Pro Pro Asp Lys Arg Ile Phe Thr Thr Arg His Thr Pro Ser Cys

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Leu Phe Gln Asp Val Asp Glu Arg Ala Ala Pro Leu Leu Gly Tyr Leu

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375

380

ccc cag gac ctc ctg ggg gcc cca gtg ctc ctg ttc ctg cat cct gag 1200

Pro Gln Asp Leu Leu Gly Ala Pro Val Leu Leu Phe Leu His Pro Glu

385

390

395

400

25 /46

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Asp Arg Pro Leu Met Leu Ala Ile His Lys Lys Ile Leu Gln Leu Ala
405 410 415

ggc cag ccc ttt gac cac tcc cct atc cgc ttc tgt gcc cgc aac ggg 1296
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420 425 430

gag tat gtc acc atg gac acc agc tgg gct ggc ttt gtg cac ccc tgg 1344
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435 440 445

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465 470 475 480

tcc ctg gac act gat atc cag gag ctg tca gag cag atc cac cgg ctg 1488
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ctg ctg cag ccc gtc cac agc ccc agc ccc acg gga ctc tgt gga gtc 1536

26 /46

Leu Leu Gln Pro Val His Ser Pro Ser Pro Thr Gly Leu Cys Gly Val

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Gly Ala Val Thr Ser Pro Gly Pro Leu His Ser Pro Gly Ser Ser Ser

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gat agc aac ggg ggt gat gca gag ggg cct ggg cct cct gcg cca gtg 1632

Asp Ser Asn Gly Gly Asp Ala Glu Gly Pro Gly Pro Pro Ala Pro Val

530

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act ttc cag cag atc tgt aag gat gtg cat ctg gtg aag cac cag ggc 1680

Thr Phe Gln Gln Ile Cys Lys Asp Val His Leu Val Lys His Gln Gly

545

550

555

560

cag cag ctt ttt att gag tct cgg gcc cgg cct cag tcc cgg ccc cgc 1728

Gln Gln Leu Phe Ile Glu Ser Arg Ala Arg Pro Gln Ser Arg Pro Arg

565

570

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ctc cct gct aca ggc acg ttc aag gcc aag gcc ctt ccc tgc caa tcc 1776

Leu Pro Ala Thr Gly Thr Phe Lys Ala Lys Ala Leu Pro Cys Gln Ser

580

585

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cca gac cca gag ctg gag gcg ggt tct gct ccc gtc cag gcc cca cta 1824

Pro Asp Pro Glu Leu Glu Ala Gly Ser Ala Pro Val Gln Ala Pro Leu

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Ala Leu Val Pro Glu Glu Ala Glu Arg Lys Glu Ala Ser Ser Cys Ser
610 615 620

tac cag cag atc aac tgc ctg gac agc atc ctc agg tac ctg gag agc 1920
Tyr Gln Gln Ile Asn Cys Leu Asp Ser Ile Leu Arg Tyr Leu Glu Ser
625 630 635 640

tgc aac ctc ccc agc acc act aag cgt aaa tgt gcc tcc tcc tcc tcc 1968
Cys Asn Leu Pro Ser Thr Thr Lys Arg Lys Cys Ala Ser Ser Ser Ser
645 650 655

tat acc acc tcc tca gcc tct gac gac gac agg cag agg aca ggt cca 2016
Tyr Thr Thr Ser Ser Ala Ser Asp Asp Asp Arg Gln Arg Thr Gly Pro
660 665 670

gtc tct gtg ggg acc aag aaa gat ccg ccg tca gca gcg ctg tct ggg 2064
Val Ser Val Gly Thr Lys Lys Asp Pro Pro Ser Ala Ala Leu Ser Gly
675 680 685

gag ggg gcc acc cca cgg aag gag cca gtg gtg gga ggc acc ctg agc 2112
Glu Gly Ala Thr Pro Arg Lys Glu Pro Val Val Gly Gly Thr Leu Ser
690 695 700

ccg ctc gcc ctg gcc aat aag gcg gag agt gtg gtg tcc gtc acc agt 2160

28 /46

Pro Leu Ala Leu Ala Asn Lys Ala Glu Ser Val Val Ser Val Thr Ser
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cag tgt agc ttc agc tcc acc atc gtc cat gtg gga gac aag aag ccc 2208
Gln Cys Ser Phe Ser Ser Thr Ile Val His Val Gly Asp Lys Lys Pro
725 730 735

ccg gag tcg gac atc atc atg atg gag gac ctg cct ggc cta gcc cca 2256
Pro Glu Ser Asp Ile Ile Met Met Glu Asp Leu Pro Gly Leu Ala Pro
740 745 750

ggc cca gcc ccc agc cca gcc ccc agc ccc aca gta gcc cct gac cca 2304
Gly Pro Ala Pro Ser Pro Ala Pro Ser Pro Thr Val Ala Pro Asp Pro
755 760 765

gcc cca gac gcc tac cgt cca gtg ggg ctg acc aag gcc gtg ctg tcc 2352
Ala Pro Asp Ala Tyr Arg Pro Val Gly Leu Thr Lys Ala Val Leu Ser
770 775 780

ctg cac aca cag aag gaa gag caa gcc ttc ctc agc cgc ttc cga gac 2400
Leu His Thr Gln Lys Glu Glu Gln Ala Phe Leu Ser Arg Phe Arg Asp
785 790 795 800

ctg ggc agg ctg cgt gga ctc gac agc tct tcc aca gct ccc tca gcc 2448
Leu Gly Arg Leu Arg Gly Leu Asp Ser Ser Ser Thr Ala Pro Ser Ala
805 810 815

ctt ggc gag cga ggc tgc cac cac ggc ccc gca ccc cca agc cgc cga 2496
Leu Gly Glu Arg Gly Cys His His Gly Pro Ala Pro Pro Ser Arg Arg
820 825 830

cac cac tgc cga tcc aaa gcc aag cgc tca cgc cac cac cag aac cct 2544
His His Cys Arg Ser Lys Ala Lys Arg Ser Arg His His Gln Asn Pro
835 840 845

cgg gct gaa gcg ccc tgc tat gtc tca cac ccc tca ccc gtg cca ccc 2592
Arg Ala Glu Ala Pro Cys Tyr Val Ser His Pro Ser Pro Val Pro Pro
850 855 860

tcc acc ccc tgg ccc acc cca cca gcc act acc ccc ttc cca gcg gtt 2640
Ser Thr Pro Trp Pro Thr Pro Pro Ala Thr Thr Pro Phe Pro Ala Val
865 870 875 880

gtc cag ccc tac cct ctc cca gtg ttc tct cct cga gga ggc ccc cag 2688
Val Gln Pro Tyr Pro Leu Pro Val Phe Ser Pro Arg Gly Gly Pro Gln
885 890 895

cct ctt ccc cct gct ccc aca tct gtg ccc cca gct gct ttc ccc gcc 2736
Pro Leu Pro Pro Ala Pro Thr Ser Val Pro Pro Ala Ala Phe Pro Ala
900 905 910

cct ttg gtg acc cca atg gtg gcc ttg gtg ctc cct aac tat ctg ttc 2784

30 /46

Pro Leu Val Thr Pro Met Val Ala Leu Val Leu Pro Asn Tyr Leu Phe
915 920 925

cca acc cca tcc agc tat cct tat ggg gca ctc cag acc cct gct gaa 2832
Pro Thr Pro Ser Ser Tyr Pro Tyr Gly Ala Leu Gln Thr Pro Ala Glu
930 935 940

ggg cct ccc act cct gcc tcg cac tcc cct tct cca tcc ttg ccc gcc 2880
Gly Pro Pro Thr Pro Ala Ser His Ser Pro Ser Pro Ser Leu Pro Ala
945 950 955 960

ctc ccc ccg agt cct cct cac cgc ccg gac tct cca ctg ttc aac tcg 2928
Leu Pro Pro Ser Pro Pro His Arg Pro Asp Ser Pro Leu Phe Asn Ser
965 970 975

aga tgc agc tct cca ctc cag ctc aat ctg ctg cag ctg gag gag ctc 2976
Arg Cys Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Leu Glu Glu Leu
980 985 990

ccc cgt gct gag ggg gct gct gtt gca gga ggc cct ggg agc agt gcc 3024
Pro Arg Ala Glu Gly Ala Ala Val Ala Gly Gly Pro Gly Ser Ser Ala
995 1000 1005

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Gly Pro Pro Pro Pro Ser Ala Glu Ala Ala Glu Pro Glu Ala Arg Leu
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gcg gag gtc act gag tcc tcc aat cag gac gca ctt tcc ggc tcc agt 3120
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gac ctg ctc gaa ctt ctg ctg caa gag gac tcg cgc tcc ggc aca ggc 3168
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Ser Ala Ala Ser Gly Ser Leu Gly Ser Gly Leu Gly Ser Gly Ser Gly
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tca ggc tcc cat gaa ggg ggc agc acc tca gcc agc atc act cgc agc 3264
Ser Gly Ser His Glu Gly Gly Ser Thr Ser Ala Ser Ile Thr Arg Ser
1075 1080 1085

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Ser Gln Ser Ser His Thr Ser Lys Tyr Phe Gly Ser Ile Asp Ser Ser
1090 1095 1100

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Glu Ala Glu Ala Gly Ala Ala Arg Gly Gly Ala Glu Pro Gly Asp Gln
1105 1110 1115 1120

gtg att aag tac gtg ctc cag gat ccc att tgg ctg ctc atg gcc aat 3408

Val Ile Lys Tyr Val Leu Gln Asp Pro Ile Trp Leu Leu Met Ala Asn

1125

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gct gac cag cgc gtc atg atg acc tac cag gtg ccc tcc agg gac atg 3456

Ala Asp Gln Arg Val Met Met Thr Tyr Gln Val Pro Ser Arg Asp Met

1140

1145

1150

acc tct gtg ctg aag cag gat cgg gag cgg ctc cga gcc atg cag aag 3504

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cag cag cct cgg ttt tct gag gac cag cgg cgg gaa ctg ggt gct gtg 3552

Gln Gln Pro Arg Phe Ser Glu Asp Gln Arg Arg Glu Leu Gly Ala Val

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1175

1180

cac tcc tgg gtc cgg aag ggc caa ctg cct cgg gct ctt gat gtg atg 3600

His Ser Trp Val Arg Lys Gly Gln Leu Pro Arg Ala Leu Asp Val Met

1185

1190

1195

1200

gcc tgt gtg gac tgt ggg agc agc acc caa gat cct ggt cac cct gat 3648

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1205

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1215

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34 /46

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Gly Glu Pro Phe Cys Pro Gly Gly Val Pro Ser Pro Gly Ala Pro Gln

20

25

30

cac cgg cct tgt cca ggc ccc agc ctg gct gat gac act gat gca aac 144

His Arg Pro Cys Pro Gly Pro Ser Leu Ala Asp Asp Thr Asp Ala Asn

35

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agc aat ggc tca agt ggc aat gag tcc aac gga ccc gag tcc agg ggc 192

Ser Asn Gly Ser Ser Gly Asn Glu Ser Asn Gly Pro Glu Ser Arg Gly

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gca tct cag cgg agt tct cat agt tcc tct tct ggc aat ggc aag gac 240

Ala Ser Gln Arg Ser Ser His Ser Ser Ser Ser Gly Asn Gly Lys Asp

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70

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tca gct ctg ctg gag acc act gag agc agc aag agt aca aac tca cag 288

Ser Ala Leu Leu Glu Thr Thr Glu Ser Ser Lys Ser Thr Asn Ser Gln

85

90

95

agc cca tcc cca ccc agc agc tcc att gcc tac agc ctc ctg agt gcg 336

35 /46

Ser Pro Ser Pro Pro Ser Ser Ser Ile Ala Tyr Ser Leu Leu Ser Ala

100

105

110

agc tca gag cag gac aac cca tct acc agt ggc tgc agc agt gaa cag 384

Ser Ser Glu Gln Asp Asn Pro Ser Thr Ser Gly Cys Ser Ser Glu Gln

115

120

125

tca gct cga gcc agg acc cag aaa gaa ctc atg act gca ctt cgg gag 432

Ser Ala Arg Ala Arg Thr Gln Lys Glu Leu Met Thr Ala Leu Arg Glu

130

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ctc aaa ctt cga ctg cca cca gag cgt cgg ggc aag ggc cgc tct ggg 480

Leu Lys Leu Arg Leu Pro Pro Glu Arg Arg Gly Lys Gly Arg Ser Gly

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160

acc ttg gcc aca ctg cag tac gct ctg gcc tgt gtc aag cag gtt cag 528

Thr Leu Ala Thr Leu Gln Tyr Ala Leu Ala Cys Val Lys Gln Val Gln

165

170

175

gct aac cag gaa tat tac cag cag tgg agt ctg gag gag ggt gag cct 576

Ala Asn Gln Glu Tyr Tyr Gln Gln Trp Ser Leu Glu Glu Gly Glu Pro

180

185

190

tgt gcc atg gac atg tct act tac acc ctg gag gaa ttg gag cat atc 624

Cys Ala Met Asp Met Ser Thr Tyr Thr Leu Glu Glu Leu Glu His Ile

195

200

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aca tcc gaa tac aca ctt cga aac cag gac acc ttc tct gtg gct gtg 672
Thr Ser Glu Tyr Thr Leu Arg Asn Gln Asp Thr Phe Ser Val Ala Val
210 215 220

tcc ttc ctg aca ggc cgg att gtc tat att tcg gag cag gca ggt gtc 720
Ser Phe Leu Thr Gly Arg Ile Val Tyr Ile Ser Glu Gln Ala Gly Val
225 230 235 240

ctg ctg cgt tgc aaa cgg gat gtg ttt cgg ggt gcc cgc ttc tca gag 768
Leu Leu Arg Cys Lys Arg Asp Val Phe Arg Gly Ala Arg Phe Ser Glu
245 250 255

ctc ctg gct ccc cag gat gtg ggt gtc ttc tat ggc tct act aca cca 816
Leu Leu Ala Pro Gln Asp Val Gly Val Phe Tyr Gly Ser Thr Thr Pro
260 265 270

tct cga ctg ccc acc tgg ggc act ggc acc tct gca ggt tca ggt ctc 864
Ser Arg Leu Pro Thr Trp Gly Thr Gly Thr Ser Ala Gly Ser Gly Leu
275 280 285

aag gac ttc acc cag gaa aag tct gtc ttc tgc cga atc aga gga ggt 912
Lys Asp Phe Thr Gln Glu Lys Ser Val Phe Cys Arg Ile Arg Gly Gly
290 295 300

cct gac cgg gat cca ggg cct cgg tac cag cca ttc cgc cta acc cca 960

37 /46

Pro Asp Arg Asp Pro Gly Pro Arg Tyr Gln Pro Phe Arg Leu Thr Pro
305 310 315 320

tat gtg acc aag att cgg gtc tca gat gga gcc cct gca cag ccg tgc 1008
Tyr Val Thr Lys Ile Arg Val Ser Asp Gly Ala Pro Ala Gln Pro Cys
325 330 335

tgc cta ctc att gcc gag cgc atc cac tct ggt tat gaa gct ccc cgg 1056
Cys Leu Leu Ile Ala Glu Arg Ile His Ser Gly Tyr Glu Ala Pro Arg
340 345 350

atc cct cct gac aag agg atc ttc acc acc cga cac aca cca agc tgc 1104
Ile Pro Pro Asp Lys Arg Ile Phe Thr Thr Arg His Thr Pro Ser Cys
355 360 365

ctc ttc cag gat gta gat gaa agg gct gcc cca ctg ctg ggt tac ctt 1152
Leu Phe Gln Asp Val Asp Glu Arg Ala Ala Pro Leu Leu Gly Tyr Leu
370 375 380

ccc cag gat ctc ctg ggg gct cca gta ctt ctc ttt cta cat cct gag 1200
Pro Gln Asp Leu Leu Gly Ala Pro Val Leu Leu Phe Leu His Pro Glu
385 390 395 400

gac cga ccc ctc atg ctg gcc att cat aag aag ata ctg cag ctg gca 1248
Asp Arg Pro Leu Met Leu Ala Ile His Lys Lys Ile Leu Gln Leu Ala
405 410 415

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Gly Gln Pro Phe Asp His Ser Pro Ile Arg Phe Cys Ala Arg Asn Gly
420 425 430

gaa tat gtc acc atg gac acc agc tgg gcc ggt ttt gtg cac ccc tgg 1344
Glu Tyr Val Thr Met Asp Thr Ser Trp Ala Gly Phe Val His Pro Trp
435 440 445

agc cgc aag gtg gct ttc gtg ttg ggt cgc cat aaa gtg cgc acg gca 1392
Ser Arg Lys Val Ala Phe Val Leu Gly Arg His Lys Val Arg Thr Ala
450 455 460

ccc ctg aat gag gac gtc ttc act ccc cca gcc ccc agc cca gct ccg 1440
Pro Leu Asn Glu Asp Val Phe Thr Pro Pro Ala Pro Ser Pro Ala Pro
465 470 475 480

tcc ctg gac tct gat atc cag gag ctc tca gag cag atc cat cga ttg 1488
Ser Leu Asp Ser Asp Ile Gln Glu Leu Ser Glu Gln Ile His Arg Leu
485 490 495

ctg ctg cag cct gtg cac agc tcc agc ccc acg ggg ctc tgt gga gtt 1536
Leu Leu Gln Pro Val His Ser Ser Ser Pro Thr Gly Leu Cys Gly Val
500 505 510

ggc cct ctg atg tcc cct ggt cct cta cac agc cct ggc tcc tcc agt 1584

Gly Pro Leu Met Ser Pro Gly Pro Leu His Ser Pro Gly Ser Ser Ser

515

520

525

gat agc aat ggg ggg gac gct gag ggg cct ggg cct cct gct cca gtg 1632

Asp Ser Asn Gly Gly Asp Ala Glu Gly Pro Gly Pro Pro Ala Pro Val

530

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540

act ttc cag cag atc tgt aag gat gtg cat ctg gta aag cac cag gga 1680

Thr Phe Gln Gln Ile Cys Lys Asp Val His Leu Val Lys His Gln Gly

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caa cag ctc ttc att gaa tct cgg gcc aag ccc cca ccc cgg ccc cgc 1728

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ctc ctt gct aca ggt aca ttc aaa gcc aaa gtc ctt ccc tgc cag tcc 1776

Leu Leu Ala Thr Gly Thr Phe Lys Ala Lys Val Leu Pro Cys Gln Ser

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Pro Asn Pro Glu Leu Glu Val Ala Pro Val Pro Asp Gln Ala Ser Leu

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gcc ttg gcc cct gag gag cca gag agg aaa gaa acc tct ggc tgt tcc 1872

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tac cag cag atc aac tgc ctg gac agc atc ctc agg tat ttg gag agc 1920
Tyr Gln Gln Ile Asn Cys Leu Asp Ser Ile Leu Arg Tyr Leu Glu Ser
625 630 635 640

tgc aac att ccc agt aca acc aag cgt aaa tgt gcc tcc tcc tcc tcc 1968
Cys Asn Ile Pro Ser Thr Thr Lys Arg Lys Cys Ala Ser Ser Ser Ser
645 650 655

tac act gcc tct tca gcc tct gat gat gac aag cag agg gca ggt cca 2016
Tyr Thr Ala Ser Ser Ala Ser Asp Asp Asp Lys Gln Arg Ala Gly Pro
660 665 670

gtt cct gtg ggg gcc aag aaa gat ccg tcg tca gca atg ctg tct ggg 2064
Val Pro Val Gly Ala Lys Lys Asp Pro Ser Ser Ala Met Leu Ser Gly
675 680 685

gag ggg gca act cct cgg aag gag cca gtg gtg gga ggc acc ctg agc 2112
Glu Gly Ala Thr Pro Arg Lys Glu Pro Val Val Gly Gly Thr Leu Ser
690 695 700

ccg ctc gcc ctg gcc aat aag gca gag agc gtg gtg tcc gtc acc agt 2160
Pro Leu Ala Leu Ala Asn Lys Ala Glu Ser Val Val Ser Val Thr Ser
705 710 715 720

cag tgt agc ttc agc tcc acc atc gtc cat gtg gga gac aag aag ccc 2208

41 /46

Gln Cys Ser Phe Ser Ser Thr Ile Val His Val Gly Asp Lys Lys Pro

725

730

735

ccg gag tcg gac atc atc atg atg gaa gac ctg cct ggc ctg gcc cct 2256

Pro Glu Ser Asp Ile Ile Met Met Glu Asp Leu Pro Gly Leu Ala Pro

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ggc cca gcc ccc agt ccg gcc ccc agc ccc aca gta gcc cct gac cca 2304

Gly Pro Ala Pro Ser Pro Ala Pro Ser Pro Thr Val Ala Pro Asp Pro

755

760

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acc cca gat gct tat cgc cca gtg ggt ctg acc aag gcc gtg ctg tcc 2352

Thr Pro Asp Ala Tyr Arg Pro Val Gly Leu Thr Lys Ala Val Leu Ser

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ctg cac aca cag aag gaa gag caa gcc ttc ctc aac cgc ttc aga gat 2400

Leu His Thr Gln Lys Glu Glu Gln Ala Phe Leu Asn Arg Phe Arg Asp

785

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795

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ctt ggc agg ctt cgt gga ctt gac acc tct tct gtg gcc ccc tca gcc 2448

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810

815

cct ggc tgc cac cat ggc ccc att ccc cct ggt cgc cga cac cac tgc 2496

Pro Gly Cys His His Gly Pro Ile Pro Pro Gly Arg Arg His His Cys

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cga tct aaa gca aag cgt tcc cgc cac cac cac cag acc ccc cgg 2544
Arg Ser Lys Ala Lys Arg Ser Arg His His His His Gln Thr Pro Arg
835 840 845

ccc gaa act ccc tgc tat gtc tcc cat cct tca cct gtg ccc tct tct 2592
Pro Glu Thr Pro Cys Tyr Val Ser His Pro Ser Pro Val Pro Ser Ser
850 855 860

gga ccc tgg cca ccc cca cca gcc acg acc ccc ttc cca gca atg gtc 2640
Gly Pro Trp Pro Pro Pro Pro Ala Thr Thr Pro Phe Pro Ala Met Val
865 870 875 880

cag ccc tac cca ctc cca gta ttc tcc cct cga gga gga ccc cag ccc 2688
Gln Pro Tyr Pro Leu Pro Val Phe Ser Pro Arg Gly Gly Pro Gln Pro
885 890 895

ctt ccc cct gcc cct aca tct gtg tcc cct gct acc ttc cct tct ccc 2736
Leu Pro Pro Ala Pro Thr Ser Val Ser Pro Ala Thr Phe Pro Ser Pro
900 905 910

tta gtg acc cca atg gtg gcc ttg gtg ctc cct aac tat cta ttc cct 2784
Leu Val Thr Pro Met Val Ala Leu Val Leu Pro Asn Tyr Leu Phe Pro
915 920 925

acc cca cct agt tat cca tat ggg gtg tcc cag gcc cct gtt gag ggg 2832

Thr Pro Pro Ser Tyr Pro Tyr Gly Val Ser Gln Ala Pro Val Glu Gly

930

935

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Pro Pro Thr Pro Ala Ser His Ser Pro Ser Pro Ser Leu Pro Pro Pro

945

950

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960

cct ctc agc ccc ccc cac cgc cca gac tcc cca ctg ttc aac tcg aga 2928

Pro Leu Ser Pro Pro His Arg Pro Asp Ser Pro Leu Phe Asn Ser Arg

965

970

975

tgc agc tcc cca ctc cag ctc aat ctg ctg cag ctt gag gag tcc ccc 2976

Cys Ser Ser Pro Leu Gln Leu Asn Leu Leu Gln Leu Glu Glu Ser Pro

980

985

990

cgc acg gag ggg ggc gct gct gca gga ggc cca gga agc agt gct ggg 3024

Arg Thr Glu Gly Gly Ala Ala Ala Gly Gly Pro Gly Ser Ser Ala Gly

995

1000

1005

ccc ctg cct ccc agt gag gag act gct gag cca gag gcc aga ttg gtg 3072

Pro Leu Pro Pro Ser Glu Glu Thr Ala Glu Pro Glu Ala Arg Leu Val

1010

1015

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gag gtt act gag tcg tcc aat cag gat gca ctt tca ggc tcc agc gac 3120

Glu Val Thr Glu Ser Ser Asn Gln Asp Ala Leu Ser Gly Ser Ser Asp

1025

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1040

ctg ctg gag cta ctg ctc caa gaa gac tct cgc tcg ggc aca ggc tcc 3168
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1045 1050 1055

gca gcc tca ggc tcc ctg ggc tct ggc ctg ggc tct ggg tct ggt tca 3216
Ala Ala Ser Gly Ser Leu Gly Ser Gly Leu Gly Ser Gly Ser Gly Ser
1060 1065 1070

gga tcc cac gaa ggg gga agc acc tca gcc agc atc acc cgc agc agt 3264
Gly Ser His Glu Gly Gly Ser Thr Ser Ala Ser Ile Thr Arg Ser Ser
1075 1080 1085

cag agc agc cat aca agc aag tac ttt ggc agc atc gac tct tcc gag 3312
Gln Ser Ser His Thr Ser Lys Tyr Phe Gly Ser Ile Asp Ser Ser Glu
1090 1095 1100

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Ala Glu Ala Gly Ala Ala Arg Ala Arg Thr Glu Pro Gly Asp Gln Val
1105 1110 1115 1120

att aag tgt gtg ctc cag gac ccc atc tgg ctg ctc atg gcc aat gcc 3408
Ile Lys Cys Val Leu Gln Asp Pro Ile Trp Leu Leu Met Ala Asn Ala
1125 1130 1135

gac cag cgt gtc atg atg aca tac cag gtg ccg tcc agg gat gca gcc 3456

45 /46

Asp Gln Arg Val Met Met Thr Tyr Gln Val Pro Ser Arg Asp Ala Ala

1140

1145

1150

tct gtg ctg aag caa gac cgg gag agg ctc cgg gcc atg cag aaa cag 3504

Ser Val Leu Lys Gln Asp Arg Glu Arg Leu Arg Ala Met Gln Lys Gln

1155

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Gln Pro Arg Phe Ser Glu Asp Gln Arg Arg Glu Leu Gly Ala Val His

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Ser Trp Val Arg Lys Gly Gln Leu Pro Arg Ala Leu Asp Val Met Ala

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1195

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ccg ctc ttc tca gaa ctg gat gga ttg ggg ctg gag ccc atg gaa gag 3696

Pro Leu Phe Ser Glu Leu Asp Gly Leu Gly Leu Glu Pro Met Glu Glu

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1225

1230

ggg gga ggc gag ggt ggt ggg tgt ggt gtt ggc ggc ggt ggg ggt gat 3744

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1235

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Gln Asp Ser Ala Met Glu Glu Glu Glu Gln Gly Gly Gly Ser Ser Ser

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cca gct tta cct gca gaa gaa aac agc acc agc tag

3876

Pro Ala Leu Pro Ala Glu Glu Asn Ser Thr Ser

1285

1290